

Land at Pat's Coaches,
Southsea, Wrexham
Ecological Appraisal
2023



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Executive Summary

Development Details

The client is proposing commercial development of land off Southsea Road, Southsea, Wrexham, hereafter referred to as the 'site'.

This report describes the ecological features of the site and its surroundings and assesses the potential impacts of the development on the ecological interest. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

Ecological Interest

The site has a moderate level of ecological interest including tall ruderal vegetation and the edge of a broadleaved woodland, which is located in New Broughton Meadow Local Wildlife Site (LWS). Adjacent to the site there is a pond, broadleaved woodland and plantation broadleaved woodland also within the LWS.

Outcomes

Further survey work is not required because sufficient information has been obtained to determine the impact of development on habitats and species.

Recommendations include:

- Creating new woodland and hedgerow habitats.
- Eradicating Japanese Knotweed *Reynoutria japonica*.
- Installing bat roosting and bird nesting boxes into adjacent woodland trees.



1. Introduction

1.1 Project Brief

- 1.1.1 Rachel Hacking Ecology Limited was commissioned in 2022 by Pat's Coaches to carry out an Extended Phase 1 Habitat Survey of land off Southsea Road, Southsea, Wrexham (O.S. grid reference: SJ 3065 5148– see Figure 1).



Figure 1. Map showing the location of the site

- 1.1.2 The development site is a dismantled railway line that formerly supported tall ruderal vegetation and scattered broadleaved trees¹. At the time of the survey, an area of hard standing (the Coach Park) had been expanded into a dismantled railway line at the expense of the tall ruderal vegetation and several broadleaved trees. To the south of the Coach park there is woodland, which is a mix of semi-natural wet woodland and plantation broadleaved woodland. The plantation is located either side and to the south of a large pond.

Description of Development

- 1.1.3 The site will be the subject of a retrospective planning application for an extension to the coach park, which is an area of hard standing. To extend the area of hard standing has required partial re-profiling of a disused railway embankment that flanks broadleaved woodland to the south.

¹ Confirmed by reference to Google Earth imagery

1.2 Scope of Work

1.2.1 The Client commissioned Rachel Hacking Ecology to carry out the following works:

- Desk-based study to obtain details of designated sites, protected and notable species within a specified search area
- Record the extent, type, and condition of habitats within and next to the site
- Search for signs of protected species and assessment of the potential of habitats and features to support protected and notable species

1.3 Site Visit Information

Surveyor Details

1.3.1 Mark Woods *MCIEEM, CEcol* visited the site on 16th August 2023. Mark has 35 years of professional experience and has carried out numerous extended Phase 1 Habitat surveyed throughout Wales.

Weather

1.3.2 During the site visit the weather was warm with sunny spells and light winds.



2. Methods

2.1 Desk Study

- 2.1.1 The Magic Multi-Agency Geographical Information for the Countryside) was interrogated for the presence of Statutory Designated Sites (and European Protected Species licences) within 1km radius of the site.
- 2.1.2 COFNOD was contacted to provide details of non-statutory designated sites and records of protected and notable species within a 1 km radius of the site.

2.2 Field Survey

Extended Phase 1 Habitat Survey

- 2.2.1 In accordance with JNCC guidelines² the site was walked over and the habitats and features of ecological interest were mapped and described. Habitats and features of particular interest were target noted.
- 2.2.2 During the walkover habitat and features were assessed for their suitability to support protected and notable species in accordance with CIEEM guidelines³. Field signs of protected, notable, and invasive non-native species, if encountered, were mapped, and described.

2.3 Mitigation Hierarchy

- 2.3.1 Mitigation measures should be embedded within the masterplan design and planning application process. Measures during the construction phases should be included in a Construction Environmental Management Plan: Biodiversity (CEMP). This process from proposal to implementation needs to consider the 'mitigation hierarchy' of avoid, reduce, compensate, and enhance:
- Aim to avoid negative effects through the design process.
 - Mitigate if negative effects cannot be avoided.
 - Use compensation measures to offset residual impacts.

² JNCC (2010). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough

³ CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management, Winchester.

- Identify and implement opportunities to enhance biodiversity.



3. Results

3.1 Survey Constraints

3.1.1 Field survey results are valid for a limited duration and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.

3.1.2 The site was fully accessible and so was the adjacent woodland and pond. The timing of the survey was suitable to detect signs of protected species.

3.2 Designated Sites

3.2.1 The desk study provided information on the designated sites listed below in Table 1. Location details for Local Wildlife Sites (LWS) can be obtained upon written request to RachelHacking Ecology.

Table 1. Designated Sites			
Name	Status	Location/distance	Interest
Gatewen Marsh	Site of Special Scientific Interest (SSSI)	0.95km west	Mesotrophic Mire
Afon Gwenfron	LWS	0.3km northwest	Habitat mosaic
Moss Valley	LWS	0.8km northeast	Habitat mosaic
Higher Berse Marsh	LWS	0.25km west	Wetland habitats
New Broughton Meadow	LWS	On-site	Habitat mosaic

3.3 Habitats

3.3.1 Target Notes and photographs are contained in Appendix 2 and the habitats survey plan is contained in Appendix 3.



Woodland

- 3.3.2 To the south of the site is an area of broadleaved woodland and plantation broadleaved woodland (TN1). The broadleaved woodland is located in low-lying areas next to a pond on wet land. Alder *Alnus glutinosa* and Crack Willow *Salix x fragilis* are the dominant canopy species and there is a mix of field layer vegetation including stands of Meadowsweet *Filipendula ulmaria* and Wild Angelica *Angelica sylvestris* and on wetter soils there appears to be stands of Bottle Sedge *Carex rostrata*⁴ and Lesser Water-parsnip *Berula erecta*. Ferns including Scaly Male-fern *Dryopteris affinis*, Broad Buckler-fern *Dryopteris dilatata*, Soft Shield-fern *Polystichum setiferum* and Hart's-tongue-fern *Asplenium scolopendrium* were present wherever soils were slightly drier. Surrounding the Alder woodland on either side of a pond were two patches of plantation woodland dominated by semi-mature Ash *Fraxinus excelsior* with a field layer dominated by Creeping Buttercup *Ranunculus repens* and scattered plants of Enchanter's Nightshade *Circaea lutetiana*, Broadleaved Willowherb *Epilobium montanum* and Common Nettle *Urtica dioica*. Alongside a dismantled railway line the woodland was a mix of Sycamore *Acer pseudoplatanus*, Hawthorn *Crataegus monogyna*, Goat Willow *Salix caprea* and Ash with Climbing Ivy *Hedera helix* and similar ferns to those described above.

Pond

- 3.3.3 Within the woodland there is a large pond (TN2) with poor water quality (discoloured and a smell of sewage). A cast iron sewage pipe crosses the pond emerging from an embankment to the north and entering an embankment to the south of the pond. The pond is shaded by the adjacent woodland but has a localised cover of emergent vegetation of Greater Reedmace *Typha latifolia* and Brooklime *Veronica beccabunga*. The west bank of the pond is ill-defined and grades into wet woodland with extensive patches of Bottle Sedge.

Ruderal Vegetation

- 3.3.4 To the west of the Coach Park is a small area of ruderal vegetation (TN5) that is located on the remaining area of dismantled railway within the site that has not been disturbed by recent development. It is understood⁵ that the vegetation was more extensive before recent extension of the Coach Park and was the dominant habitat type on the bed of the dismantled railway. Aerial imagery suggests that there was also Bramble *Rubus fruticosus* agg. scrub on the former railway track, and also trees and shrubs, some of which have been removed. There was a diverse assemblage of ruderal species including Hoary Mustard *Hirschfeldia incana*, Long-headed Poppy *Papaver dubium*, Common Poppy *Papaver rhoeas*, Large Bindweed *Calystegia sylvatica*, Sticky Groundsel *Senecio viscosus*, Smooth

⁴ This will need to be verified because there were no fruits.

⁵ Discussion with the landowner and review of aerial imagery



Sow-thistle *Sonchus oleraceus*, Common Orache *Atriplex patula*, Mugwort *Artemisia vulgaris*, Scentless mayweed *Tripleurospermum inodorum*, Black Medick *Medicago lupulina*, Lesser Swinecress *Lepidium didymum*, Imperforate St. John's-wort *Hypericum maculatum* and American Willowherb *Epilobium ciliatum*.

- 3.3.5 The embankment of the dismantled railway (TN4) has been disturbed by vegetation removal and re-profiling to create a stable slope. Re-colonisation is a sparse cover of ruderal species such as Chickweed *Stellaria media*, Docks *Rumex* spp., Dandelion *Taraxacum* agg. and Ground Elder *Aegopodium podagraria*.

Bare Ground / Hard Standing

- 3.3.6 The former dismantled railway is now covered in compacted hardcore to form an extension to the existing Coach Park.

3.4 Species

- 3.4.1 Desk study results obtained from COFNOD are summarised below, but further details can be provided by written request to Rachel Hacking Ecology.



- 3.4.2 The desk study returned 66 records of at least five bat species including Brown Long-eared Bat *Plecotus auritus*, Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Natterer's Bat *Myotis nattereri* and Noctule Bat *Nyctalus noctula*.

- 3.4.3 There were no trees with potential roost features (PRFs) within woodland TN1 and no structures within the site that could provide roosting opportunities for bats.

- 3.4.4 The woodland (TN1) and pond (TN2) provide suitable foraging and dispersal habitat for bats, but the Coach Park and ruderal vegetation (TN5) are sub-optimal foraging and dispersal habitats.



- 3.4.5



Otter

- 3.4.6 The desk study returned a single record for Otter *Lutra lutra* within the search area. Suitable habitat within the site and the adjacent woodland (TN1) and pond (TN2) is not present because of isolation from the nearest river and a lack of foraging opportunities. Otter is not, therefore, considered any further in this report.

Other Mammals

- 3.4.7 The desk study returned 20 records of Hedgehog *Erinaceus europaeus* and single records for Stoat *Mustela erminea* and Polecat *Mustela putorius* within the search area. The woodland (TN1) is too wet to support prey species such as Rabbit *Oryctolagus cuniculus* and other small mammals and the dismantled railway had no rabbit or small animal burrows so the presence of Stoat and Polecat is not anticipated and there is no further discussion in this report.
- 3.4.8 Wet woodland (TN1) is also sub-optimal for Hedgehog, but the drier railway embankment (TN4) and former track-bed (TN5) provide potential foraging opportunities.

Birds

- 3.4.9 The desk study returned 3220 records of 90 bird species within the search area indicating that the local area is valuable and has a variety of habitats that are suitable for nesting, roosting and foraging birds.
- 3.4.10 During the survey Blackcap *Sylvia atricapilla*, Carrion Crow *Corvus corone*, Dunnock *Prunella modularis*, Woodpigeon *Columba palumbus*, Magpie *Pica pica*, Robin *Erithacus rubecula* and Blackbird *Turdus merula* were seen or heard in woodland TN1 and Mallard *Anas platyrhynchos* was present on pond TN2. During the site visit no birds were observed on the Coach Park or in the ruderal vegetation (TN5).

Reptiles

- 3.4.11 The desk study did not return any records for reptiles within the search area. The woodland TN1 and pond TN2 could provide foraging for Grass Snake *Natrix helvetica*, but there were no obvious features that could provide hibernacula and basking opportunities in undisturbed areas are not present. As such the presence of reptiles on the Coach Park, embankment and ruderal vegetation are not anticipated and reptiles are not, therefore, considered any further in this report.

Amphibians

- 3.4.12 The desk study returned 44 records of five species including Common Frog *Rana temporaria*, Common Toad *Bufo bufo*, Palmate newt *Lissotriton helvetica*, Smooth Newt *Lissotriton vulgaris* and Great Crested Newt (GCN) *Triturus cristatus*. The nearest GCN record was 0.83km to the northwest separated by housing and roads.
- 3.4.13 During the site visit a juvenile Common Frog was observed next to pond TN2 in marsh vegetation.
- 3.4.14 A Habitat Suitability Index (HSI)⁶ assessment of the pond provides a numerical score to grade the suitability of the pond to support GCN. The pond is scored between 0 and 1, with 0 indicating

⁶ Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10(4), 143-155.

unsuitable habitat and 1 representing optimal habitat. The results of the assessment are summarised in Table 2.

Table 2. Pond Habitat Suitability Index Summary		
Feature	Results	Pond TN8 HSI Score
SI1 - Location	Area A	1
SI2 - Pond area	>2000m ²	0.8
SI3 - Pond drying	sometimes	0.5
SI4 - Water quality	Bad	0.01
SI4 - Shade	c. 70%	0.8
SI6 - Fowl	Minor	0.67
SI7 - Fish	Minor	0.67
SI8 - Ponds	Isolated by busy roads and housing	0.1
SI9 - Terrestrial habitat	Good (woodland)	1
SI10 - Macrophytes	<20%	0.5
Habitat Suitability Index		0.3588 (poor)

Invertebrates

- 3.4.15 The desk study returned 31 records of 11 species of invertebrates. There is suitable habitat for Alder Leaf Beetle *Agelastica alni* and Holly Blue *Celastrina argiolus* in woodland TN1, and for Red-tailed Bumble-bee *Bombus lapidarius* and Common Carder-bee *Bombus pascuorum* in ruderal vegetation (TN5). The pond has very poor water quality and is considered unsuitable for dragonfly larvae and there is no habitat for other butterflies recorded in the local area.
- 3.4.16 The woodland TN1 is good quality habitat for invertebrates, but the poor water quality in pond TN2 is likely to have a significant influence on its suitability for invertebrates. The patch of ruderal vegetation has potential to support invertebrates but is of limited size and the habitat type is common elsewhere in the local area.

Plants

- 3.4.17 The desk study returned 83 records of 43 species of vascular plants and five records of five bryophyte species within the search area.
- 3.4.18 The pond margins (TN2) and wet woodland (TN1) support a notable assemblage of vascular plants, but the drier parts of the woodland (TN1) is species-poor. The bryophytes in the woodland are limited

to a few common species including Common Feather-moss *Kindbergia praelongum* and Rough-stalked Feather-moss *Brachythecium rutabulum*.

3.5 Invasive Species

Fauna

- 3.5.1 Within the search area the desk study returned 13 records of three bird species including Ring-necked Parakeet *Psittacula krameri*, Mandarin Duck *Aix galericulata* and Canada Goose *Branta canadensis*, and two records of Harlequin Ladybird *Harmonia axyridis*. None of these species were observed during the site visit, but the woodland provides suitable habitat for Ring-necked Parakeet.

Flora

- 3.5.2 The desk study returned 11 records of six species including Himalayan Cotoneaster *Cotoneaster simonsii*, Japanese Knotweed, Himalayan Balsam *Impatiens glandulifera*, Montbretia *Crocasmia x crocosmiiflora*, Cherry Laurel *Prunus laurocerasus*, and Variegated Archangel *Lamiastrum galeobdolon* subsp. *argentatum*.
- 3.5.3 A single plant of Japanese Knotweed (TN3) is located 3m from the southeast corner of the Coach Park amongst a small stand of Butterfly Bush *Buddleja davidii*. There is a patch of Japanese Knotweed on the former dismantled railway approximately 10m from the Coach Park that is more than 50m long extending into the neighbouring woodland, but is stopped from further spread to the south by the wet soils. None of the other species were recorded on or in close proximity to the site.

4. Assessment

4.1 Development Context

- 4.1.1 The Coach Park has been extended to the south by importation of materials to create an area of hard standing with modified embankments to the south, east and west. The area cleared of vegetation is a mix of ruderal vegetation, Bramble scrub and scattered trees and shrubs. The intention is to finish the surfacing of the Coach Park with crushed hardcore.

4.2 Impacts on Designated Sites

- 4.2.1 Gatwen Marsh SSSI is geographically separated from the site by urban areas and the extension of the Coach Park will have no impact on recreational activities in the SSSI, so an adverse impact is not anticipated .
- 4.2.2 Three of the LWS are geographically separated by urban infrastructure. Higher Berse Marsh LWS appears to be hydrologically linked to the pond in New Broughton Meadow LWS, which is located next to the Coach Park. Surface water run-off from the Coach Park will drain on to the banks above the pond, which are a mix of soil and rubble so that any pollutants will not enter the pond directly. As such a degradation of the water quality in Higher Berse Marsh LWS and New Broughton Meadow LWS because of the extension of the Coach Park is not anticipated.
- 4.2.3 The extension of the Coach Park has resulted in the loss of part of the New Broughton Meadow LWS, which is designated for its variety of semi-natural habitats. The citation specifically states that the dismantled railway supports scrub habitat and the extension of the Coach Park has probably led to a loss of scrub and ruderal vegetation. Given the loss of habitats the impact of extending the Coach Park, without mitigation, is considered to be adverse.

4.3 Impacts on Habitats

- 4.3.1 This section evaluates and describes potential impacts and assesses ecological effects on habitats that are within the study area.

Woodland and Scrub

- 4.3.2 The woodland (TN1) that partially surrounds the Coach Park is isolated alongside the boundary by a steep embankment of soil and rubble. It is understood that trees were removed in the vicinity of the

dismantled railway that were presumably part of woodland TN1 and without mitigation such losses are adverse. Further adverse impacts on the woodland because of the Coach Park are not anticipated.

- 4.3.3 Observation of aerial imagery from 2021 indicates that there has been a loss of scrub and a few isolated trees on the dismantled railway. The impact of habitat loss, without mitigation, is likely to be adverse.

Pond

- 4.3.4 An adverse impact on pond TN2 is not anticipated. Surface water run-off from the Coach Park will be intercepted by the substrates on the embankment, which will filter any harmful substances such as hydrocarbons and reduce the potential for further deterioration of a pond that already has very poor water quality.

Ruderal

- 4.3.5 There is a small area of ruderal vegetation (TN5) to the west of the Coach Park on the trackbed of the dismantled railway. The habitat has a diverse range of plants and contributes to the diversity of vegetation within the New Broughton Meadow LWS. However, many of the species are not native, there are no rare or scarce species in the assemblage and the size of the habitat is relatively small so the assemblage is of no more than site level of ecological interest

4.4 Impacts on Species

Bats

- 4.4.1 None of the woodland trees contained potential roost features so an impact on roosting bats as a consequence of tree felling is unlikely to have occurred. A woodland edge has been retained alongside the Coach Park so assuming that there will be no addition of artificial lighting an adverse impact is not anticipated.

4.4.2

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Hedgehog

- 4.4.3 Impacts described for [REDACTED] also apply for Hedgehog such as the new embankments providing foraging opportunities. The presence of Hedgehog close to the Coach Park cannot be discounted because there are brash stacks and areas of dense vegetation that could provide cover for Hedgehog

during summer months. An adverse impact as a consequence of completing the Coach Park is not, however, anticipated because the hardcore surface is not suitable for Hedgehog.

Birds

- 4.4.4 The extension to the Coach Park and the associated loss of habitat has potentially caused a loss of nesting and foraging habitat. The remaining habitats within the New Broughton Meadow LWS will continue to provide birds with foraging, nesting and roosting opportunities so further adverse impacts are not anticipated.

Amphibians

- 4.4.5 The HSI indicated a pond of poor quality for GCN but the presence of newly metamorphosed Common Frog suggests that pond TN2 is being used for breeding by at least one species of amphibian and the presence of more cannot be discounted. The clearance of vegetation from the dismantled railway had the potential for an adverse impact on amphibians, but this may already have occurred. Further work to the Coach Park will not cause any further habitat loss or significant disturbance of potential GCN terrestrial habitat (woodland and scrub) or pond TN2, so an adverse impact is not anticipated.

Invertebrates

- 4.4.6 An adverse impact to invertebrates may have already occurred during the vegetation clearance. Further impacts during completion of the Coach Park works are not anticipated because the work will be localised and on habitat with negligible suitability for invertebrates.

Plants

- 4.4.7 Habitats with notable assemblages of plants such as the pond margins and wet woodland have not, to date, been disturbed by the Coach Park works and there is no cause for concern with regards to the completion of the work because it will be confined to the Coach Park itself.

4.5 Invasive Species

- 4.5.1 The construction and completion of the Coach Park will not cause the spread of Ring-necked Parakeet and the pond is not suitable for Mandarin Duck or Canada Goose, so specific mitigation is not required.
- 4.5.2 Japanese Knotweed (TN3) is present close to the southeast boundary of the Coach Park. Under the Wildlife and Countryside Act (Section 14 and Part II of Schedule 9) 1981 (as amended), it is an offence for Japanese Knotweed to be planted in the wild or otherwise cause it to grow in the wild.
- 4.5.3 It is not an offence to have Japanese Knotweed on your land, but it is an offence to allow the species to spread into neighbouring areas or to grow in the wild. Given the close proximity of the nearest plant to the Coach Park boundary the potential for the remaining work to cause the spread of the species cannot be discounted.

5. Recommendations

5.1 Further Surveys

- 5.1.1 There is no requirement for further survey work because the ecological impacts of the development, to date, and what is proposed have been fully determined.

5.2 Mitigation Measures

- 5.2.1 Given that most of the work has already been completed and what remains is confined to the development footprint it is not known whether the proposed mitigation will offset the impacts of development. However, reinstatement of what has been destroyed is unlikely to be viable so proposed measures are aimed at maximising the opportunities within the development footprint.

Habitats

- 5.2.2 The embankments surrounding the Coach Park will be cleared of litter, further compacted to stabilise the slopes and dressed with a layer of topsoil to a minimum depth of 30cm. No topsoil will be applied to the base of any of the retained trees and shrubs that are present on or at the bottom of the slopes.
- 5.2.3 Retained trees and shrubs will be coppiced or pollarded to increase the available light to the slopes in advance of tree and shrub planting.
- 5.2.4 The slopes will be planted with appropriate native trees and shrubs as specified by the Arboricultural Consultant. Bare rooted, 40-60cm whips will be planted at 2m centres, and appropriately protected and supported.
- 5.2.5 At the top of the slope a hedgerow consisting of Hawthorn *Crataegus monogyna*, Hazel *Corylus avellana*, Holly *Ilex aquifolium*, Dog Rose *Rosa canina*, Dogwood *Cornus sanguinea*, and Wild Privet *Ligustrum vulgare* will be planted in double, staggered rows at five plants per metre. Bare rooted 40-60cm whips will be planted and appropriately protected and supported.
- 5.2.6 A programme of aftercare of trees and shrubs will be carried out by suitably qualified personnel for a period of five years and guards and supports will be removed and disposed off-site at the end of that period.
- 5.2.7 When sufficiently mature, the hedgerow will be managed by biennial trimming in winter. The embankment trees and shrubs will be managed by limited intervention.
- 5.2.8 The trees and shrub planting will be extended into the area of ruderal vegetation (TN5), which will be mown before applying topsoil and planting. Aftercare and management will also be carried out in addition to routine mowing of soft vegetation.

Lighting

- 5.2.9 No artificial lighting will be located on the south, east, and west boundaries of the Coach Park where those boundaries adjoin woodland or scrub habitat.

Roosting Bats

- 5.2.10 Clusters of three woodcrete roosting bat boxes (Schwegler 1ff or equivalent) will be attached to three trees (nine in total) selected by a suitably qualified ecologist (SQE), facing southeast, south and southwest at a height of at least 5m from ground level.

Nesting Birds

- 5.2.11 Ten woodcrete bird nesting boxes (Schwegler 1b or equivalent) will be attached to five trees at a height of at least 5m above ground level. Trees will be selected by a SQE.

Japanese Knotweed

- 5.2.12 The small clump of Japanese Knotweed (TN3) that is present next to the southeast boundary will be treated with a suitable herbicide and applications will be repeated until the clump is eradicated.

Appendix 1: Planning Policy & Legislation

Policy

Biodiversity is a material consideration, and Planning Authorities (LPAs) have a requirement to consider biodiversity and protected species when determining planning applications. Planning Policy Wales ('PPW') (11th Edition, February 2021) is the national planning document for the Welsh Government. It is supplemented by Technical Advice Notes ('TANs') and Circulars. TAN 5 provides national policy guidance for nature conservation and planning.

The Welsh Government's objectives as stated within PPW (paragraph 6.4.3) include:

- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
- ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
- ensure statutorily and non-statutorily designated sites are properly protected and managed;
- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and
- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

PPW also outlines the requirements of local planning authorities to assess the impact of any development proposals on nature conservation.

TAN 5 Nature Conservation and Planning states how planning authorities should comply with their duty to "...have a regard, so far as is consistent with the proper exercise of [their] functions, to the purpose of conserving biodiversity", as required by the Environment Act, 2016. The key principles of positive planning for nature conservation in TAN 5 are:

- Work to achieve nature conservation objectives through a partnership between LPAs, Natural Resources Wales ('NRW'), voluntary organisations, developers, landowners and other key stakeholders;
- Integrate nature conservation into all planning decisions looking for development to deliver social, economic and environmental objectives together over time;
- Ensure that the United Kingdom's ('UK') international and national obligations for site, species and habitat protection are fully met in all planning decisions;
- Look for development to provide net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally;



- Help to ensure that development does not damage, or restrict access to, or the study of, geological sites and features or impede the evolution of natural processes and systems especially on rivers and the coast;
- Forge and strengthen links between the town and country planning system and biodiversity action planning particularly through policies in local development plans and the preparation of supplementary planning guidance that adds value to Local Biodiversity Action Plans ('LBAP') by highlighting the ways in which the planning system can help to deliver the objectives of LBAPs in practical ways;

Legislation

The Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000) includes the notification and confirmation of Sites of Special Scientific Interest (SSSIs). SSSIs can be notified for their floral, faunal, geological, or physiographical features. Protection against damaging operations and management of SSSIs is also included within the Act. Impact Risk Zones (IRZs) are zones around an SSSI account for the particular sensitivities of the features for which it is notified and identify development proposal which could have adverse impacts.

The Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000) protects native animals, plants and habitats. Under the Act it is an offence to intentionally kill, injure or take any wild animal listed on Schedule 5 and it is an offence to interfere with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act prohibits picking, uprooting or destroy any wild plant (or any attached seed or spore) listed in Schedule 8.

European Protected Species (EPS) such as bats are protected by the Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000) and the Conservation of Habitats and Species Regulations 2017. The Acts make it an offence to:

- Deliberately capture, injure or kill an EPS;
- Deliberately impair an EPS's ability to survive, breed, reproduce, rear or nurture young; to hibernate or migrate; or significantly affect the local distribution or abundance of the EPS.
- Possess or control live or dead EPS or any part of, or anything derived from a EPS;
- Damage or destroy a breeding site or resting place of an EPS;
- Intentionally or recklessly obstruct access to any place that is used for shelter or protection by an EPS;
- Intentionally or recklessly disturb a structure or place that it uses for shelter or protection that is occupied by an EPS.

All birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird or take, damage, or destroy its nest whilst in use or being built, or take or destroy



its eggs. It is an offence to intentionally or recklessly disturb a species listed on Schedule 1 of the Act while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young.

[REDACTED]

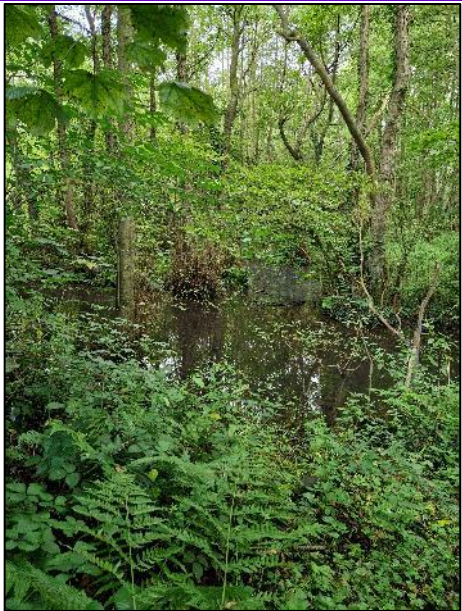
[REDACTED]

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[REDACTED]

Section 6 of the Environment (Wales) Act 2016 places a legal obligation on public bodies in Wales, whilst carrying out their functions, to 'maintain and enhance biodiversity'. Section 7 requires Welsh Ministers to publish and maintain lists of species and types of habitats in Wales that are of 'principal importance' for maintaining and enhancing biodiversity.

Appendix 2: Target Notes

Reference No.	Habitat	Photograph
1	Broadleaved Woodland	
2	Standing Water	

3	Japanese Knotweed	
4	Ephemeral / Short Perennial	

5	Tall Ruderal Vegetation	
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Appendix 4: Phase 1 Habitat Survey Plan

